



## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

**1.1. Product identifier**

**Number** 050

**Manufacturer** Apex Flavors, Inc.  
1371 Brass Mill Rd.  
Suite A  
Belcamp, MD 21017  
(410) 565-6600

**Product name** BLACKBERRY TYPE, NATURAL FLAVOR BLEND  
**Pure substance/mixture** Mixture

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**Recommended Use** No information available

**1.3. Details of the supplier of the safety data sheet**

For further information, please contact:

**E-mail Address** cpisano@apexflavors.com

**1.4. Emergency telephone number**

**Emergency telephone** Chemtrec: 1-800-424-9300 for US/ 703-527-3887 outside US

## 2. HAZARDS IDENTIFICATION

**2.1. Classification of the substance or mixture**

|                                   |             |
|-----------------------------------|-------------|
| Serious eye damage/eye irritation | Category 2A |
| Acute aquatic toxicity            | Category 3  |
| Chronic aquatic toxicity          | Category 3  |
| Flammable liquids                 | Category 3  |

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**  
For the full text of the R-phrases mentioned in this Section, see Section 16

**2.2. Label elements**

**Signal Word**

Warning

**Hazard Statements**

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

H226 - Flammable liquid and vapor

**Precautionary Statements**

P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking

**2.3. Other information****3. COMPOSITION/INFORMATION ON INGREDIENTS****3.1 Substances**

| Chemical Name    | EC-No     | CAS-No  | Alternate CAS # | Weight % | Classification according to Directive 67/548/EEC or 1999/45/EC | Classification according to Regulation (EC) No. 1272/2008 [CLP]                 | REACH Registration Number |
|------------------|-----------|---------|-----------------|----------|--|---|---------------------------|
| PROPYLENE GLYCOL | 200-338-0 | 57-55-6 |                 | 50-90%   | -  | No data available   | No data available         |
| ETHYL ALCOHOL    | Present   | 64-17-5 |                 | 10-15%   | F; R11   | Eye Irrit. 1 (H319) (EFFA)<br>Flam. Liq. 2 (H225) (EFFA)<br>Flam. Liq. 2 (H225) | No data available         |

For the full text of the R-phrases mentioned in this Section, see Section 16

**4. FIRST AID MEASURES****4.1. Description of first aid measures****General advice**

If symptoms persist, call a physician

**Eye contact**

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

**Skin contact**

Immediate medical attention is not required. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.

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|   |   |
|---|---|
| <b>Ingestion</b>                          | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Call a physician. Do NOT induce vomiting.               |
| <b>Inhalation</b>                         | Immediate medical attention is not required. If symptoms persist, call a physician. Move to fresh air in case of accidental inhalation of vapors or decomposition products. |
| <b>Self-protection of the first aider</b> | Use personal protective equipment   |

**4.2. Most important symptoms and effects, both acute and delayed****4.3. Indication of any immediate medical attention and special treatment needed**

**Note to physicians** Treat symptomatically

## 5. FIRE-FIGHTING MEASURES

**5.1. Extinguishing media****Suitable Extinguishing Media**

Use Dry chemical Carbon dioxide CO<sub>2</sub> Water spray Alcohol-resistant foam

**Extinguishing media which shall not be used for safety reasons**

No information available

**5.2. Special hazards arising from the substance or mixture****Special Hazard**

None

**5.3. Advice for firefighters****Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear

## 6. ACCIDENTAL RELEASE MEASURES

**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Remove all sources of ignition. Pay attention to flashback. Take precautionary measures against static discharges. Use personal protective equipment.

See Section 12 for additional Ecological Information

**6.2. Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**6.3. Methods and material for containment and cleaning up**

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust)

## 7. HANDLING AND STORAGE

**7.1. Precautions for safe handling**

Use only in area provided with appropriate exhaust ventilation. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Keep away from heat, sparks and open flame. No smoking. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors).

**7.2. Conditions for safe storage, including any incompatibilities**

Keep containers tightly closed in a cool, well-ventilated place. Keep away from heat. Keep in properly labeled containers.

**7.3 Specific end use(s)**

Exposure scenario N/A

Other Guidelines N/A

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****8.1. Control parameters**

**Exposure limits** This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

| Chemical Name               | European Union | The United Kingdom   | France   | Spain  | Germany  |
|-----------------------------|----------------|--|--|--|--|
| PROPYLENE GLYCOL<br>57-55-6 |                | STEL: 450 ppm<br>STEL: 1422 mg/m <sup>3</sup><br>STEL: 30 mg/m <sup>3</sup><br>TWA: 150 ppm<br>TWA: 474 mg/m <sup>3</sup><br>TWA: 10 mg/m <sup>3</sup> |  |  |  |
| ETHYL ALCOHOL<br>64-17-5    |                | STEL: 3000 ppm<br>STEL: 5760 mg/m <sup>3</sup><br>TWA: 1000 ppm<br>TWA: 1920 mg/m <sup>3</sup>   | TWA: 1000 ppm<br>TWA: 1900 mg/m <sup>3</sup><br>STEL: 5000 ppm<br>STEL: 9500 mg/m <sup>3</sup> | STEL: 1000 ppm<br>STEL: 1910 mg/m <sup>3</sup> | TWA: 500 ppm<br>TWA: 960 mg/m <sup>3</sup><br>Ceiling / Peak: 1000 ppm<br>Ceiling / Peak: 1920 mg/m <sup>3</sup><br>Skin |

| Chemical Name            | Italy | Portugal      | The Netherlands  | Finland  | Denmark                                      |
|--------------------------|-------|---------------|--|--|--|
| ETHYL ALCOHOL<br>64-17-5 |       | TWA: 1000 ppm | Skin<br>STEL: 1900 mg/m <sup>3</sup><br>TWA: 260 mg/m <sup>3</sup> | TWA: 1000 ppm<br>TWA: 1900 mg/m <sup>3</sup><br>STEL: 1300 ppm<br>STEL: 2500 mg/m <sup>3</sup> | TWA: 1000 ppm<br>TWA: 1900 mg/m <sup>3</sup> |

| Chemical Name               | Austria  | Sweden - Occupational Exposure Limits - TLVs (LLVs) | Switzerland  | Poland                      | Norway  |
|-----------------------------|--|---|--|-----------------------------|---|
| PROPYLENE GLYCOL<br>57-55-6 |  |   |  |                             | TWA: 25 ppm<br>TWA: 79 mg/m <sup>3</sup><br>STEL: 37.5 ppm<br>STEL: 118.5 mg/m <sup>3</sup>   |
| ETHYL ALCOHOL<br>64-17-5    | STEL 2000 ppm<br>STEL 3800 mg/m <sup>3</sup><br>TWA: 1000 ppm<br>TWA: 1900 mg/m <sup>3</sup> | 500 ppm NGV<br>1000 mg/m <sup>3</sup> NGV           | STEL: 1000 ppm<br>STEL: 1920 mg/m <sup>3</sup><br>TWA: 500 ppm<br>TWA: 960 mg/m <sup>3</sup> | TWA: 1900 mg/m <sup>3</sup> | TWA: 500 ppm<br>TWA: 950 mg/m <sup>3</sup><br>STEL: 625 ppm<br>STEL: 1187.5 mg/m <sup>3</sup> |

| Component                              | Ireland   |
|--|---|
| PROPYLENE GLYCOL<br>57-55-6 ( 50-90% ) | TWA: 150 ppm<br>TWA: 470 mg/m <sup>3</sup><br>TWA: 10 mg/m <sup>3</sup> |
| ETHYL ALCOHOL<br>64-17-5 ( 10-15% )    | STEL: 1000 ppm  |

**Derived No Effect Level (DNEL)** No information available

**Predicted No Effect Concentration (PNEC)** No information available

### 8.2. Exposure controls

**Engineering Controls** Ensure adequate ventilation, especially in confined areas

#### **Personal protective equipment**

|                                 |   |
|---------------------------------|---|
| <b>Eye Protection</b>           | Tightly fitting safety goggles  |
| <b>Hand Protection</b>          | Protective gloves   |
| <b>Skin and body protection</b> | Long sleeved clothing Chemical resistant apron Antistatic boots Impervious gloves                               |
| <b>Respiratory protection</b>   | When workers are facing concentrations above the exposure limit they must use appropriate certified respirators |

**General Hygiene Considerations** When using, do not eat, drink or smoke Provide regular cleaning of equipment, work area and clothing

**Environmental Exposure Controls** No information available

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

|                       |                       |                   |           |
|-----------------------|-----------------------|-------------------|-----------|
| <b>Physical state</b> | liquid                | <b>Appearance</b> | clear     |
| <b>Odor</b>           | typical of blackberry | <b>Color</b>      | colorless |

| <u>Property</u>                        | <u>Values</u>            | <u>Method</u>            |
|--|--------------------------|--------------------------|
| pH                                     |                          | No information available |
| Melting/freezing point                 |                          | No information available |
| Boiling point/boiling range            |                          | FCC Method               |
| Flash Point                            | 47 °C / 116 °F           | Closed cup               |
| Evaporation rate                       |                          | FCC Method               |
| Flammability (solid, gas)              |                          | No information available |
| Flammability Limits in Air             |                          | No information available |
| Upper flammability limit               |                          |                          |
| lower flammability limit               |                          |                          |
| Vapor pressure mm Hg 20°C              |                          | No information available |
| Vapor density                          |                          | No information available |
| Relative density                       |                          | No information available |
| Specific Gravity @ 25C                 | 1.0007 - 1.0307          | FCC Method               |
| Specific Gravity @ 20C                 | 1.0037 - 1.0337          | FCC Method               |
| Refractive Index                       | 1.3828 - 1.4128          | FCC Method               |
| Water solubility                       |                          | No information available |
| Partition coefficient: n-octanol/water |                          | No information available |
| Autoignition temperature               |                          | No information available |
| Decomposition temperature              |                          | No information available |
| Viscosity, dynamic                     |                          | No information available |
| <b>Explosive properties</b>            | No information available |                          |
| <b>Oxidizing Properties</b>            | No information available |                          |

### 9.2. Other information

|                         |                          |
|-------------------------|--------------------------|
| <b>VOC Content(%)</b>   | 64.3643964317544         |
| <b>Molecular Weight</b> | No information available |

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

### 10.2. Chemical stability

Stable under normal conditions

### 10.3. Possibility of hazardous reactions

### 10.4. Conditions to avoid

Heat, flames and sparks

### 10.5. Incompatible materials

No materials to be especially mentioned

### 10.6. Hazardous decomposition products

None under normal use conditions

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Acute toxicity

|                       |   |
|-----------------------|---|
| <b>Inhalation</b>     | There is no data available for this product                             |
| <b>Eye contact</b>    | There is no data available for this product                             |
| <b>Skin contact</b>   | There is no data available for this product                             |
| <b>Ingestion</b>      | There is no data available for this product                             |
| <b>Acute toxicity</b> | 35.168962% of the mixture consists of ingredient(s) of unknown toxicity |

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 1, 2005):

|               |                 |
|---------------|-----------------|
| <b>Oral</b>   | 24,332.00 mg/kg |
| <b>Dermal</b> | 25,305.00 mg/kg |
| <b>Mist</b>   | 9.28 mg/l       |

| Chemical Name    | Oral LD50           | Dermal LD50            | LC50 Inhalation        |
|------------------|---------------------|------------------------|------------------------|
| PROPYLENE GLYCOL | 20000 mg/kg ( Rat ) | 20800 mg/kg ( Rabbit ) |                        |
| ETHYL ALCOHOL    |                     |                        | 124.7 mg/L ( Rat ) 4 h |

|  |   |
|--|---|
| <b>Skin corrosion/irritation</b>                                   | No information available  |
| <b>Eye damage/irritation</b>                                       | No information available  |
| <b>Sensitization</b>   | No information available  |
| <b>Germ Cell Mutagenicity</b>                                      | No information available  |
| <b>Carcinogenicity</b>   | No information available  |
| <b>Specific target organ systemic toxicity (single exposure)</b>   | No information available  |
| <b>Specific target organ systemic toxicity (repeated exposure)</b> | No information available  |
| <b>Target Organ Effects</b>  | Blood Central nervous system Eyes Liver Reproductive system Respiratory system Skin |
| <b>Aspiration hazard</b>   | No information available  |

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

#### Ecotoxicity effects

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants

| Chemical Name    | Toxicity to algae                                     | Toxicity to fish   | Toxicity to daphnia and other aquatic invertebrates                               |
|------------------|---|--|---|
| PROPYLENE GLYCOL | 19000: 96 h Pseudokirchneriella subcapitata mg/L EC50 | 51600: 96 h Oncorhynchus mykiss mg/L LC50 static 41 - 47: 96 h Oncorhynchus mykiss mL/L LC50 static 51400: 96 h Pimephales promelas mg/L LC50 static 710: 96 h Pimephales promelas mg/L LC50 | 10000: 24 h Daphnia magna mg/L EC50 1000: 48 h Daphnia magna mg/L EC50 Static     |
| ETHYL ALCOHOL    |   | 12.0 - 16.0: 96 h Oncorhynchus mykiss mL/L LC50 static 100: 96 h Pimephales promelas mg/L LC50 static 13400 - 15100: 96 h Pimephales promelas mg/L LC50 flow-through                         | 9268 - 14221: 48 h Daphnia magna mg/L LC50 2: 48 h Daphnia magna mg/L EC50 Static |

### 12.2. Persistence and degradability

No information available

### 12.3. Bioaccumulative potential

No information available

| Chemical Name | log Pow |
|---------------|---------|
| ETHYL ALCOHOL | -0.32   |

### 12.4. Mobility in soil

No information available

### 12.5. Results of PBT and vPvB assessment

### 12.6. Other adverse effects

## 13. DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste from residues / unused products

Dispose of in accordance with local regulations

#### Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal

## 14. TRANSPORT INFORMATION

### DOT

#### IMDG / IMO

|                      |                              |
|----------------------|------------------------------|
| Proper shipping name | EXTRACTS, FLAVOURING, LIQUID |
| Hazard class         | 3                            |
| UN/ID No             | 1197                         |
| Packing Group        | III                          |

**ICAO/IATA**

|                      |                              |
|----------------------|------------------------------|
| UN/ID No             | 1197                         |
| Proper shipping name | EXTRACTS, FLAVOURING, LIQUID |
| Hazard class         | 3                            |
| Packing Group        | III                          |
| ERG Code             | 127                          |

|                                   |
|-----------------------------------|
| <b>15. REGULATORY INFORMATION</b> |
|-----------------------------------|

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****WGK Classification**

|                             |   |
|-----------------------------|---|
| Chemical Name               | Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes |
| PROPYLENE GLYCOL<br>57-55-6 | Hazard Class 1  |
| ETHYL ALCOHOL<br>64-17-5    | Hazard Class 1  |

**International Inventories**

All of the components in the product are on the following Inventory lists: United States of America (TSCA), Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Australia (AICS), China (IECSC), Philippines (PICCS).

|                      |          |
|----------------------|----------|
| <b>TSCA</b>          | Complies |
| <b>EINECS/ELINCS</b> | Complies |
| <b>DSL/NDSL</b>      | Complies |
| <b>PICCS</b>         | Complies |
| <b>ENCS</b>          | -        |
| <b>IECSC</b>         | Complies |
| <b>AICS</b>          | Complies |
| <b>KECL</b>          | -        |

**Legend**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances

**15.2. Chemical safety assessment**

|                              |
|------------------------------|
| <b>16. OTHER INFORMATION</b> |
|------------------------------|

**Full text of H-Statements referred to under sections 2 and 3**

H319 - Causes serious eye irritation H225 - Highly flammable liquid and vapor

|               |                 |
|---------------|-----------------|
| Revision Date | 21-Jan-2016     |
| Revision Note | Not applicable. |
| Revision#     | 1               |



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This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

**WARNING/DISCLAIMER:**

Apex Flavors, Inc.'s products are sold exclusively for use in food and drink for human consumption. These products have not been tested, nor have they been deemed safe, for inhalation or use in electronic smoking devices, electronic nicotine delivery systems, and electronic cigarettes or similar devices (collectively "E-Cigarettes"). In supplying this product(s), Apex Flavors, Inc. instructs, and purchasing recipient confirms, that this product(s) will not be used in connection with the manufacture and distribution of E-Cigarettes or any component thereof. Recipients of our products that use them outside of their intended use of food or drink do so at their own risk and without warranty, either expressed or implied, from Apex Flavors, Inc. or its suppliers. The user assumes all liability for loss, injury, damage, or expense resulting from such uses.

**Disclaimer**

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